



科技管理學院
College of Technology Management

CTM

E-Newsletter

06 2026
June



諾貝爾大師在清華 Nobel Laureate at NTHU
2012 年諾貝爾經濟學獎得主 Alvin E. Roth
Professor Alvin E. Roth, 2012 Nobel Prize Winner in Economics

CTM 人物專訪 CTM Interview
《紀律長贏》：
林哲群教授談投資紀律與人生哲學
DISCIPLINE - The Proven Path to Investment Success:
Professor Che-Chun Lin on Resilient Investing and Life Philosophy

理性的追夢者：科管院學士班校友申力安，
用自律奪回人生主導權
The Rational Dreamer: IPMT Alumna Ally Shen on Reclaiming Life's Narrative Through Discipline

教師研究亮點 Spotlight on Research
科技管理研究所 胡美智教授
Professor Mei-Chih Hu, Institute of Technology Management

科管院大小事 CTM at a Glance



06 2026

CONTENTS

- 01 諾貝爾大師在清華：
2012 年諾貝爾經濟學獎得主 Alvin E. Roth
- 05 《紀律長贏》：林哲群教授談投資紀律與人生哲學
- 08 理性的追夢者：科管院學士班校友申力安，
用自律奪回人生主導權
- 11 教師研究亮點：科技管理研究所 胡美智教授
- 12 科管院大小事
- 15 Nobel Laureate at NTHU: Professor Alvin E.
Roth, 2012 Nobel Prize Winner in Economics
- 21 DISCIPLINE - The Proven Path to Investment
Success : Professor Che-Chun Lin on Resilient
Investing and Life Philosophy
- 24 The Rational Dreamer: IPMT Alumna Ally
Shen on Reclaiming Life's Narrative Through
Discipline
- 27 Spotlight on Research: Professor Mei-Chih Hu,
Institute of Technology Management
- 29 CTM at a Glance



發行人：科管院彭心儀院長
執行總編：公共事務辦公室潘虹華主任
共同編輯：彭美婷、劉苡萱
網站：www.ctm.nthu.edu.tw

諾貝爾大師在清華：2012 年諾貝爾經濟學獎得主 Alvin E. Roth 當經濟學不只設計市場，同時拯救生命

蕭喬文同學、楊昭容同學撰



左起：許博炫教授、彭心儀院長、Roth 教授、陳添枝教授

「諾貝爾大師在清華」系列講座於 2026 年 4 月 20 日清華台積館登場，邀請 2012 年諾貝爾經濟學獎得主、現任史丹佛大學經濟學教授 Alvin E. Roth 演講。由清華特聘講座、計財系與經濟系許博炫老師開場引言，Roth 教授發表《市場、市場設計與醫療》專題講座，以「市場設計」為核心，說明經濟學不只是研究價格、供需與效率，也能透過制度安排，回應升學、就業、器官移植等真實社會問題。

演講開頭，Roth 教授重新定義「市場」的意義。他指出，市場並非自然形成，而是人類為了協調彼此行為所設計的工具，就像語言一樣，會隨著科技與社會變遷而演

化。因此，經濟學更像是一種制度工程，需要根據不同問題，設計合適的運作方式。他進一步區分商品市場與配對市場。商品市場如股票交易，價格通常能發揮主要作用；但配對市場如求職、婚姻、升學與器官移植，重點不只是價格，而是雙方是否適合、是否互相選擇，因此更需要制度協助。

在建立理論基礎後，Roth 教授將焦點轉向腎臟移植市場。他指出，器官短缺是全球共同面臨的難題，許多腎衰竭患者即使長期洗腎，仍可能等不到合適器官。由於多數國家禁止器官買賣，無法直接透過價格提高供給，因此必須尋找其他制度安排。



Roth 教授提出的「腎臟交換」便是在此背景下發展而來。當捐贈者無法直接捐給自己的親友時，可透過與其他家庭交換，讓原本不相容的配對重新找到機會；若形成成熟的捐贈鏈，則能讓更多患者受益。這項制度已在美國實際運作，成為市場設計應用於醫療領域的重要案例。

Roth 教授也談及台灣的情況，指出台灣同樣面臨器官供給不足與等待人數眾多的問題。若市場規模過小，找到合適配對的機會也會受限，因此未來若能擴大參與範圍，甚至推動跨國合作，將有助於提升整體配對效率。對他而言，經濟學的角色並非只是解釋問題，而是協助設計制度，使稀缺資源能更有效且更公平地被分配。

在演講後半段的為論壇與問答，由許博炫教授與台北政經學院（TSE）陳添枝講座教授的共同主持，討論焦點從制度設計延伸至社會價值。針對效率與公平的關係，Roth 教授指出，市場若要順利運作，不能只追求效率，也必須獲得社會信任。他以大學入學制度為例說明，即使考試看似客觀，仍可能因家庭背景與教育資源差異而造成不平等。在婚姻與人口議題上，他也回應晚婚與少子化現象，指出這與女性勞動參與提高、家庭分工尚未同步調整有

關，反映出市場結果往往受到社會制度與文化影響。

此外，現場也討論器官捐贈是否應引入誘因。Roth 教授並未直接主張器官市場化，而是認為可以透過補助、稅務優惠等政策實驗，觀察是否能提高捐贈意願。他也提到，在實際腎臟交換系統中，違反承諾的比例極低，顯示人類行為往往比模型假設更具合作性。

整場講座從理論、案例到問答討論，展現經濟學不只是解釋世界，也能參與改善制度。Roth 教授以市場設計說明，當市場被視為一種可被調整的工具，經濟學便能在醫療、教育與社會政策中發揮實際作用，也為在場師生提供了重新理解經濟學的角度。

科管院師生座談

4月21日週二下午的台積館九樓異常熱鬧，在友達講堂中即將舉辦與諾貝爾經濟學獎得主 Roth 教授的師生座談會。在講座的一開始，主持人 IMBA 主任周嗣文教授首先問了在場所有人一個問題：「有任何支持腎臟交易的人嗎？請舉手。」無人舉手。Roth 教授接著娓娓道來：「在美國的課堂中，我也曾問過相同的問題。當標



的為腎臟時，大多數人都表示贊成；然而，當我將問題改為活體心臟捐贈時，一隻隻高舉的手都被放下了。」器官買賣有其界限，而腎臟基於其功能可替代性與大量的需求，在部分美國人心裡被認為是可以金錢交易的標的，Roth 教授亦為其中一人。然而，若開放了腎臟交易市場，是否會產生經濟剝削與分配不正義的問題--在腎臟取得方面，將由經濟弱勢階層提供；在腎臟移植方面，因為市場價格的哄抬，將使經濟弱勢者無從取得任何移植腎臟。對此，Roth 教授認為，為了不要產生以上不平等的現象，市場設計 (market design) 極為重要。開放交易市場不代表完全自由放任 (laissez faire)，政府應建立合理且有效的規管機制，以避免腎臟取得不均的正義問題。例如，可以由政府作為唯一買家，參考血小板在美國的管理模式，將腎臟視為公共財，提供給有需求

的人。另一方面，以國際角度來看，剝削看似難以避免，許多人擔心一開放交易市場，將會形成由第三世界人民系統性地提供腎臟給美國人的「腎臟金庫」現象。然而，需要腎臟的不僅是富有階級，腎臟疾病尤其影響經濟弱勢階層。再者，當我們不斷重申剝削疑慮的同時，許許多多需要腎臟的病患正鋌而走險進入黑市交易。黑市中的腎臟移植手術，往往在極其惡劣的環境下進行。當黑市造成大規模人權侵害時，我們不能僅關注潛在的剝削問題而止步不前。此時，話題一轉，回到 Roth 教授主導的腎臟交換計畫。腎臟交換計畫並非以金錢交易腎臟，而是將一對腎臟病患與捐贈者和另一對病患與捐贈者配對 (matching)，以使兩位病患獲得與身體相容的腎臟。因器官移植需要器官接收者與提供者之器官不具抗性方可成功，故而

即使一位病患尋得一位願意提供腎臟之捐贈者，仍有高機率無法完成腎臟移植。此時，完善的配對系統得以提高病患獲得相容之腎臟的機會。不僅如此，Roth 教授與其團隊進一步嘗試三方交換的可能性。然而，為避免其中一方之捐贈者在其他捐贈完成後毀約拒絕捐贈，腎臟移植需要同時進行，故而限縮了四方以上的交換可能性。以此為前提，Roth 教授開始思考如何使非同步交換成立--於是便有了非同步交換鎖鏈的誕生。亦即，由一位無償捐贈者開始提供具有配對捐贈者的患者，此患者之捐贈者再提供腎臟給下一位配對腎臟的患者，以此不斷重複，最終將會以無配對捐贈者的患者結束此一鏈結。此時，任何一位配對捐贈者之毀約並不會使接下來的患者失去配對捐贈者之腎臟，使其在未來仍有機會尋得相容之腎臟。這樣的構想已在美國實踐，並拯救了許多腎臟病患。

那麼，這樣的構想是否應等到法規完備後才開始實行，以避免過程中的權利侵害？對此，Roth 教授的答案是否定的：「當我們在法規完備後才實施相關計畫，一切都太晚了。」法規的整備往往耗費數年，匈牙利就是一例，雖然在 2010 年代即訂定相關法律，但為了讓法規更加完備，花了十年才真正開始實行腎臟交換。在這段時間裡苦於腎臟疾病的病患數以千計。因此，腎臟交換的實踐應先於法規的制定，若在過程中產生問題，應在現場改善修正--亦即，應由下而上地實施計畫。Roth 教授作為經濟學家，從實用主義的角度，與我們分享他對於腎臟交換的看法。



《紀律長贏》： 林哲群教授談投資紀律與人生哲學

莊怡萱同學 撰



左為：計財系副教授暨科管院公共事務辦公室主任 潘虹華老師；右為計財系教授暨清華大學校友服務及資源發展長 林哲群老師

支撐一所頂尖大學追求卓越、邁向國際的背後，往往需要龐大且穩健的財務後盾。去年甫卸任科管院院長的林哲群教授，現為清華大學校友服務及資源發展長。林教授近期出版新書《紀律長贏》，公開清大校務基金的操盤心法。

從預算制到「永續基金」的變革

「校務基金」對台灣一般大眾相對陌生，卻是歐美頂尖名校維持競爭力的命脈。林哲群教授解釋，美國如哈佛、耶魯等常春藤名校，長久以來皆仰賴龐大的「捐贈基金」支撐校務發展，每年基金投資回報能為學校預算貢獻達 10% 至 14%。

相較之下，台灣早期的國立大學完全仰賴政府預算，年度結餘甚至必須繳回國庫，難以進行長期規劃。直到 1996 年教育部推動設置校務基金，學校才擁有財務自主空間。而林教授與校務基金的淵源始於 2012 年，當時他接下財務規劃室副主任，協助管理甫成立的清大「永續基金」，將課堂上的財務理論化為實戰，為清華建立持續創造收益的活水。

風險先行，存活比獲勝更重要

掌管校務基金，林教授的投資哲學理性且保守。林教授強調：「我們的第一原則是控制風險，其次才是追求報酬。」對於長

期資金而言，承受過度的短期波動是絕對禁忌。

因此，團隊立下了嚴格的「紀律」：首先是「核心名單」制度，股票投資標的嚴格限縮在一百檔以內的優質企業，不在名單內的飆股絕對不碰，阻絕未知風險。其次，是「資產配置與現金彈性」，將資金穩健切割，配置於個股與穩定收益的債券型ETF，並堅持保留一定比例的現金。

林教授強調，現金是應對突發危機的緩衝墊。回顧2020年新冠疫情爆發及後續的通膨與升息，正是因為保留現金彈性，讓團隊在市場恐慌下殺時能逢低買進優質資產。正是這套穩紮穩打的紀律，讓清大永續基金成功度過多次景氣循環。

堅守理念，放棄短期獲利

身為國立頂尖大學，校務基金的運作必須兼顧社會責任。林教授分享了團隊經歷過最掙扎的一次決策：當時基金曾持有一檔大型傳統鋼鐵股，隨著景氣循環與原物料行情升溫，股價未來可能一路攀升。然而，後續有立委辦公室點出，該企業被認定為國內高碳排產業代表之一，引發外界對大學校務基金是否符合永續理念的討論。雖然該公司本身同時也是富時永續指數的成分股，但清華大學作為倡議永續發展的重要學府，我們仍選擇以更高標準檢視自身投資原則。最終，基於ESG與長期價值的一致性考量，我們決定全數出清持股。這也讓我們更加確信「紀律投資不只是追求

績效，更是在面對爭議時，仍能堅持原則與價值。」

林教授表示，國立大學的資金來自社會善意，必須堅守道德與環境底線，這正是「紀律長贏」背後最深層的意義。

AI時代的人機協作：作決策的仍是「人」

面對AI與量化交易技術的成熟，未來的投資決策是否會被人工智慧取代？林教授指出，「AI是非常強大的工具，在資料處理與情境模擬上遠勝人類。但是，AI無法為決策『負責』。」，金融市場充滿人性的貪婪與恐懼，當系統性風險來臨、市場陷入非理性恐慌時，AI的量化建議可能失靈。他進一步指出，最終拍板定案、安撫團隊情緒並承擔風險的，依然是有血有肉的「人」。

也因此，林教授勉勵學生在面對AI時不要恐懼，而要學習協作。善用AI提升效率，並將時間投入於培養人性洞察力、抗壓性與建立穩健的價值觀。決策的品質或許仰賴科技，但決策的承擔卻是倚靠人性。

領導力蛻變與重新定義人脈

林教授也分享了從基層走向高階主管的領導力蛻變：初入職場首重「執行力」，精準完成任務以累積信用；升任中階主管需具備「整合能力」，協調跨部門資源；到了高階決策者，核心則是「承擔與決策」，需在高壓下果斷拍板並負起最終責任。



林教授點破年輕人對「經營人脈」的迷思：真正的人脈並非社交場合的點頭之交，而是為解決複雜問題，與不同領域的人團隊合作，在實戰中建立的革命情感與信任。林教授鼓勵學生多參與跨領域專案、商業競賽，並積極爭取企業實習與出國交換，拓展視野。

談到清大未來的願景，林教授提出「全面升級學生宿舍」的觀點。他強調，台灣高等教育的國際化不僅是全英語授課，更在於生活環境的基礎建設。唯有提供具備國際水準、安全舒適的住宿環境，才能吸引全球頂尖人才來台，這也是校務基金期望重點支持的項目。

結語

從林哲群教授的訪談中，看見了校務基金背後的千頭萬緒。從體制突破到價值堅守，再到對科技浪潮的認知。林教授用實戰經驗展示，「紀律」不僅是投資的獲利密碼，更是人生的防護網。期盼每位清華學子都能如同一筆穩健的永續基金，不盲從短期喧囂，以深厚的實力與紀律，看清風險、堅守原則，創造人生的長遠複利。

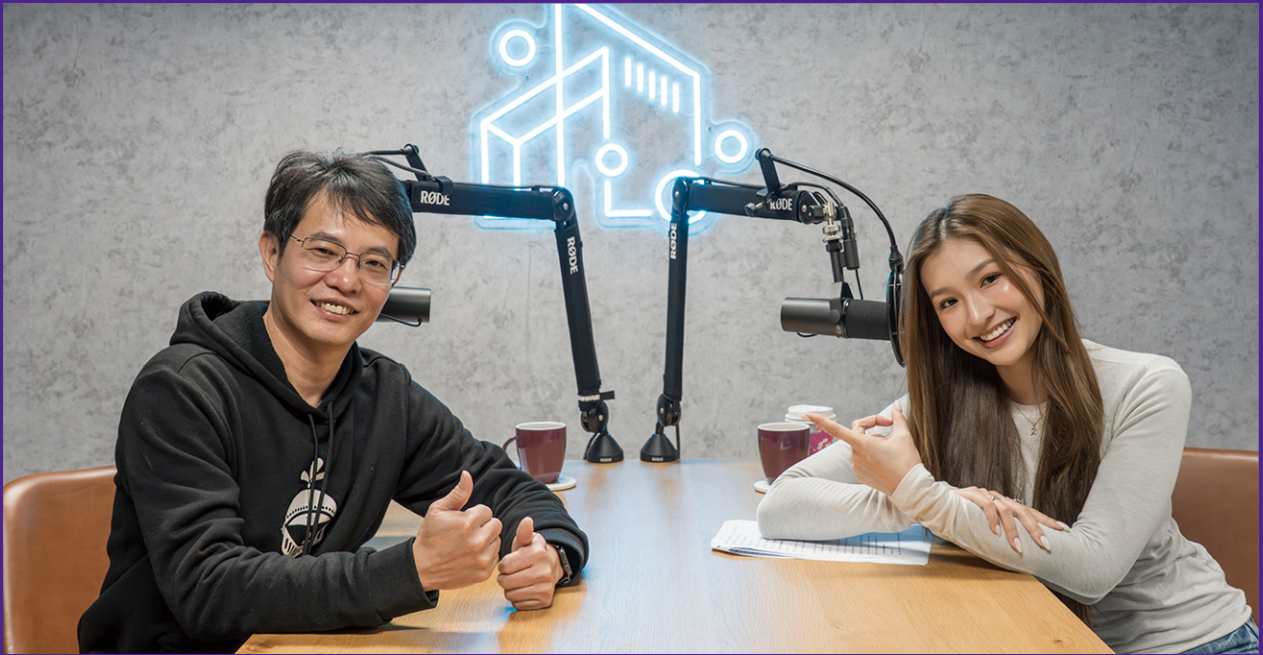
本次訪談完整內容。將於7月份
<清華科管領航員>頻道播出。



Podcast

理性的追夢者：科管院學士班校友申力安，用自律奪回人生主導權

莊怡萱同學 撰



左為：經濟系副教授 周瑞賢老師；右為科管院學士班 申力安校友

同時具備「清大高材生」與「獨立創作歌手」雙重身分的申力安，從女團「PER6IX」的偶像，到一手包辦詞曲創作的獨立音樂人；從面臨出國留學或演藝事業的抉擇，到能夠提早一年畢業證明自己。申力安的理性與自律，是她在學業與演藝事業間取得平衡的關鍵，透過本次訪談，展示出新世代創作者如何走出自己的節奏。

鎂光燈下的高材生，用行動打破刻板印象

回顧升大學的階段，申力安當時已擔任練習生三年並準備出道，同時也錄取了國外的學校。為了不放棄演藝機會，她選擇進

入清華大學「清華學院學士班」的實驗教育方案。這讓她能自訂課綱，將科技管理、行銷學與美國伯克利音樂學院（Berklee College of Music）的線上音樂課程結合。

面對父母的擔憂，申力安選擇用行動說服家人：「我爸當時說，如果沒考上台灣頂尖大學就出國唸書，我傾向用行動證明。」進入清大後，她兩度拿下代表學業優異的書卷獎，證明了自己能兼顧課業與演藝工作。

三年畢業的決策：創造時間彈性

大學一年級隨女團出道後，演藝工作卻因為疫情而停擺。看著同學紛紛出國留學，

申力安坦言也曾有過自我懷疑：「我是不是乾脆當個平凡的學生就好？」

經過思考，她決定不放棄已投入的心力，並做出策略性的調整，以驚人的毅力將四年的大學課程壓縮在三年內修完，讓原本該讀大四的時間能夠完全空出來，專注在演藝事業，為自己創造發展空間，之後再來決定未來是要出國讀書或留在台灣。

在時間管理上，她也依照自己的作息進行調整：「我很了解自己早起的集中力很差，所以我的課盡量都排在下午。」按自身習慣規劃排程，是她在緊湊生活中得以保持高效率的方式。

從女團到獨立創作：掌握作品主導權

在學術訓練的基礎上，申力安的畢業專題探討了「數位時代音樂行銷的關鍵要素」，透過學術分析，比較主流唱片公司與獨立歌手的差異。同時，她也以個人身分推出第一首全創作單曲《IS IT ALL A LIE》，從作詞、作曲到參與編曲皆親力親為。

從被公司包裝的女團成員，轉型為獨立創作人，申力安表示：「現在可以更明確地操控作品呈現的感覺與風格。」她喜歡將細節掌握在手中，讓音樂傳達個人的想法。

「唱自己的作品，和唱別人寫好的歌，成就感完全不同。」

理性的行銷觀點與面對批評的態度

身處數位時代，一個歌手不能只會唱歌，還必須懂得推銷自己。這也是申力安選擇

學習「行銷」的原因。她對市場趨勢有著極高的敏銳度。

「行銷非常關注時事和熱點走向。現在時間走得越來越快，流行也變得很迅速，你如果不小心沒跟上，可能兩個月前的東西現在就已經不中了。」她會主動分析 Instagram 和 Reels 的演算法，觀察哪些題材 (Topic) 最能吸引聽眾，再將這些心得整理成自己的靈感資料庫。

除了市場的瞬息萬變，身為公眾人物，還必須面對來自四面八方的網路評論。而面對這些評論，申力安認為：「我是一個很理性的人，如果不在意的話，我可能會變成機器人。但我會去『選擇』。」她分析道，「如果這則評論是基於某件事我真的沒做好而給的建設性批評，我會吸收；但如果只是為酸而酸，我看完只會覺得很好笑，然後直接忽視它。」

她在自己的內心中劃出清晰的界線，不讓無意義的惡意消耗自己的能量。「我覺得這種人身攻擊就不用看了。我的情緒來得快去得也快，我不會是一個很會記仇或想太久的人。」

未來藍圖：規劃與不可或缺的儀式感

提到未來的具體目標時，申力安的眼中閃爍著光芒：「我真的很想開一場自己的專場演唱會！不用太大，大概 100 到 500 人那種小型的 Legacy 專場。台下的粉絲會跟

著我一起唱我寫的歌，那會是一個非常棒的體驗。」為了這個目標，她正在籌備下一張專輯，持續累積自己的作品量。申力安還分享最新的進度：「最近剛好有一首新歌正在混音，是一首跟『媽寶』有關的歌！」語氣中充滿了對新作品的期待與自信。

申力安認為，如果用三個形容詞定義現在的自己，那會是「理性」、「規劃」、「懂生活」。要用生活上的儀式感，這番體悟，是申力安一路以來的經驗談：「我以前很盲目地想要把每件事做好，花很多時間在工作上。但我後來發現，人生真的只有這幾年，你今天規劃跟計畫都是為了有一個好的生活，如果你沒有去享受它，你怎麼在生活中找到創作的靈感？」

定義自己的人生

申力安拒絕被單一標籤定義，在看似衝突的「學術」與「演藝路」之間找到了完美的平衡點。她用理性的邏輯拆解夢想，自律的規劃鋪墊未來，同時也不忘在快節奏的世代裡享受生活。

期待在不久的將來，這位從清大校園走出去的創作歌手，能在那個夢想中數百人的專場舞台上，唱出每一首屬於自己的歌。

本次訪談完整內容。將於6月份
< 清華科管領航員 > 頻道播出。

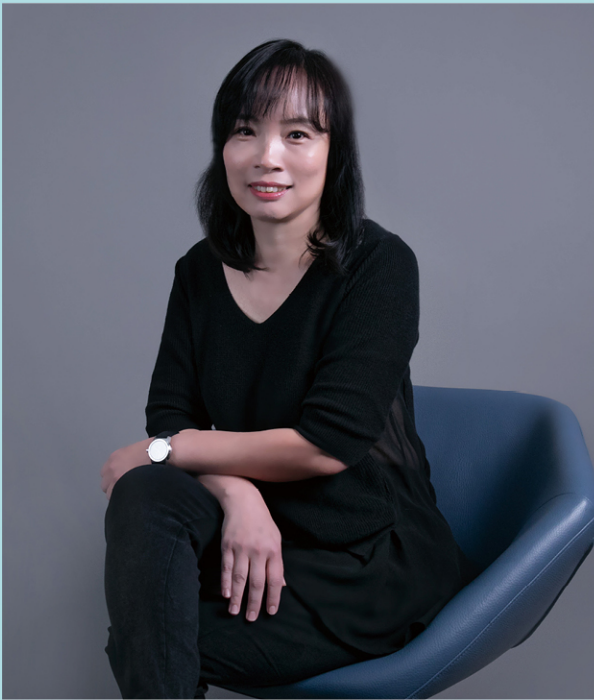


Podcast



教師研究亮點： 科技管理研究所 胡美智教授

胡美智教授提供



從塑膠廢棄物到循環經濟：臺灣經驗給發展中國家的啟示

Supporting a circular economy: Insights from Taiwan's plastic waste sector and lessons for developing countries

作者：Wu, C. Y., Hu, M. C., and Ni, F. C.

刊登於：Sustainable Production and Consumption, 26, 228–238 (SSCI)

胡教授於 2023 年 9 月底榮獲聯合國 ECOSOC 智庫 Centre for Socio-Eco-Nomic Development 特別邀請，在瑞士日內瓦舉行之 WTO Public Forum 進行本篇論文口頭發表。

隨著氣候變遷、資源耗竭與廢棄物治理成為全球重要課題，循環經濟已是各國推動永續發展的關鍵方向。然而，循環經濟並不只是提高回收率或改善處理技術，更需要政府、產業、企業與社會共同建構可持續運作的制度與產業網絡。

胡美智教授與研究團隊以臺灣塑膠廢棄物產業為例，探討臺灣如何在工業化與環境壓力下，逐步發展出具產業規模的循環經濟模式。研究指出，臺灣經驗的關鍵在於政府制度調整、產業網絡合作、中小企業能力累積與市場需求變化之間的相互配合，形成能持續回應環境挑戰與產業需求的集體創新能力。

本研究特別強調「網絡式集體資源重組」與「適應性制度治理」的重要性。對發展中國家而言，推動循環經濟不一定要從高度成熟的技術或大型企業開始，而可善用既有產業基礎、地方企業能量與政策誘因，逐步建立綠色產業路徑。臺灣塑膠廢棄物產業的案例，正展現後進經濟體如何將環境治理轉化為產業升級與新事業發展的機會。

本文不僅補充循環經濟與永續生產消費領域的研究，也將臺灣本土經驗帶入國際永續發展對話，為發展中國家推動綠色轉型提供具有參考價值的案例。

院內大小事

科管院公共事務辦公室提供

榮譽 Honor

114 學年度 科技管理學院院長獎：
經濟系 朱永冠同學
學士班 范辰于同學

科技管理學院厚德會傑出學生獎：
IBBA 郭星宏同學

朱順一合勤獎學金：
學士班 徐文謙同學

114 學年度 清華大學校教師傑出教學獎：
科法所 陳宛妤副教授

114 學年度 科技管理學院專任教師
傑出教學獎：
科法所 陳宛妤 副教授
經濟系 蔡璧涵副教授
計財系 潘虹華副教授

114 學年度 科技管理學院兼任教師
傑出教學獎：
計財系 林濬暘老師
經濟系 楊雨霓老師

2026 年科技管理學院
「鼓勵投稿頂尖期刊」獲獎名單：
計財系 許博炫特聘講座教授
科法所 林勤富教授
科法所 李怡俐副教授

2026 年 科技管理學院研究獎：

科法所 林勤富教授
經濟系 黃賀寶副教授
科管所 簡珮瑜助理教授

2026 年 科技管理學院厚德會傑出研究獎：

計財系 許博炫特聘講座教授
服科所 徐茉莉講座教授
科管所 洪世章講座教授

2026 年 科技管理學院新進人員研究獎：

學士班 賴怡君助理教授
科法所 黃若翔助理教授

2026 年 科管院傑出產學研究暨社會影響力獎得獎者：

計財系 林哲群教授

活動 Events

4/16 孫運璿科技講座 風傳媒總主筆夏珍，
講題：歡迎進入破碎的後真相時代 -
媒體、數位、政治。

4/18 科法所校友回娘家

4/20 諾貝爾大師在清華，邀請 2012 經濟
學獎得主 Alvin E. Roth 教授，講題
Markets, Market Design and Medicine。

4/21 諾貝爾大師在清華，邀請 2012 經濟
學獎得主 Alvin E. Roth 教授與院內
師生舉辦座談會。

4/25 科管院在職專班、經濟系校友回娘家

4/26 科管院學士班 20 週年校友回娘家

5/07 孫運璿科技講座 中國醫藥大學 江安世校長暨院士，講題：AI 連結體 - 解碼腦網路，點燃精準醫療的大數據革命。

5/25 孫運璿科技講座 遠傳電信總經理井琪，講題：如何以新科技推動企業永續成長與治理。

5/30 科技管理學院辦理院畢業典禮





Nobel Laureate at Tsing Hua: Professor Alvin E. Roth, 2012 Nobel Laureate in Economics

When Economics Goes Beyond Market Design to Save Lives

Written by Jovan Hsiao, Tiffany Yang



From the left: Prof. Po-Hsuan Hsu, Dean Shin-Yi Peng, Prof. Roth, Prof. Tain-Jy Chen

The prestigious "Nobel Laureate at Tsing Hua" lecture series kicked off on April 20, 2026, at the TSMC Building of National Tsing Hua University (NTHU). This year's event featured Professor Alvin E. Roth, the 2012 Nobel Laureate in Economics and current Professor of Economics at Stanford University.

Following a warm introduction by Professor Po-Hsuan Hsu, a Distinguished Chair Professor cross-appointed to the Department of Quantitative Finance and the Department of Economics, Professor Roth delivered a captivating keynote titled

Markets, Market Design, and Medicine. At the heart of his lecture was the concept of "market design." Professor Roth demonstrated that economics extends far beyond the traditional metrics of price, supply, demand, and efficiency—it can be a powerful form of institutional engineering capable of solving critical social challenges, from school admissions and employment to life-saving organ transplantations.

Redefining the "Market"

Professor Roth began by reshaping



the audience's understanding of what a market is. He pointed out that markets are not organic phenomena that simply appear; rather, they are human-designed tools engineered to coordinate collective behavior. Much like languages, markets evolve alongside technological breakthroughs and societal shifts.

He drew a sharp distinction between commodity markets and matching markets:

- **Commodity Markets:** In environments like stock exchanges, price serves as the primary mechanism for clearing the market.
- **Matching Markets:** In scenarios such as college admissions, job hunting, marriage, or organ donation, price alone cannot solve the problem. Instead, success depends on mutual selection-the parties must choose each other. These markets require carefully designed institutional frameworks to function properly and fairly.

Economics on the Medical Frontier: Kidney Exchange

Turning theory into practice, Professor Roth focused on the global crisis of organ shortages. Millions of patients suffering

from kidney failure endure grueling, long-term dialysis while waiting for a compatible organ. Because the buying and selling of human organs is illegal in most countries, standard market forces cannot increase the supply.

To bypass this hurdle, Professor Roth pioneered the concept of "kidney exchange." When a willing donor is biologically incompatible with their intended recipient (such as a relative), they can cross-donate with another incompatible pair. This creates a chain of compatibility that gives multiple patients a new lease on life. This market design model is already successfully integrated into the U.S. healthcare system.

Addressing the situation in Taiwan, Professor Roth noted that the country faces a similar bottleneck with long waiting lists and a limited domestic pool. When a market scale is too small, matching efficiency drops significantly. He suggested that expanding the scope of participation or fostering international collaborative networks could drastically improve matching success rates. For Professor Roth, the ultimate goal of economics is not just to analyze scarcity, but to design systems that allocate



precious resources effectively and equitably.

Balancing Efficiency, Fairness, and Social Values

The second half of the event featured an engaging panel discussion and Q&A session, co-moderated by Professor Po-Hsuan Hsu and Chair Professor Tain-Jy Chen from the Taipei School of Economics and Political Science (TSE). The conversation quickly expanded from mechanical system design to broader sociological impacts.

When discussing the tension between efficiency and fairness, Professor Roth emphasized that a market cannot function sustainably on efficiency alone; it must command public trust. He cited university admissions to show that standardized testing, while seemingly objective, often perpetuates inequality due to disparities

in socio-economic backgrounds and educational resources.

He also weighed in on demographic challenges, linking delayed marriages and declining birth rates to the rapid rise of female workforce participation at a time when domestic division of labor has failed to adapt-illustrating how heavily market outcomes are dictated by social institutions and culture.

On the controversial topic of introducing incentives for organ donation, Professor Roth clarified that he does not support a completely commercialized, unregulated organ market. Instead, he proposed structured policy experiments-such as government subsidies or tax incentives-to safely gauge public willingness to donate. Interestingly, he noted that in existing kidney exchange programs, the rate of



donors reneging on their promises is remarkably low. This proves that human behavior in the real world is often far more cooperative and altruistic than rigid economic models predict.

Ultimately, the lecture highlighted a refreshing take on the discipline: economics is not just an academic lens to interpret the world, but an active toolkit to improve it.

Inside the Seminar: A Deep Dive with CTM Faculty and Students

On the afternoon of April 21, the atmosphere in the AUO Lecture Hall on the 9th floor of the TSMC Building was buzzing with anticipation as faculty and students from the College of Technology Management (CTM) gathered for a seminar with Professor Roth.

The session opened with a provocative

question from the moderator, Professor Szu-Wen Chou, Director of the IMBA program: "Is there anyone here who supports the legal trade of kidneys? Please raise your hand." Not a single hand went up. Professor Roth smiled and shared a contrasting observation from his classes in the United States: "When I ask American students the same question regarding kidneys, the majority actually raise their hands in support. But the moment I change the premise to living heart donations, those hands drop instantly." This anecdote illustrated that while organ trading has psychological and ethical boundaries, the kidney's functional redundancy (since humans have two) and the overwhelming market demand lead many Americans to view it as a legitimate commodity.



The Ethics of Regulation vs. The Black Market

This sparked an intense debate: would a legalized kidney market inevitably lead to economic exploitation and systemic injustice? Critics worry that the financially vulnerable would become default organ suppliers, while skyrocketing market prices would price poor patients out of receiving transplants altogether.

Professor Roth argued that this is precisely why robust "market design" is mandatory. Legalization does not mean a laissez-faire free-for-all. Governments must establish airtight regulatory frameworks to prevent exploitation. For instance, the government could act as a monopsony (the sole buyer), managing kidneys as a public good and allocating them strictly based on medical urgency—similar to how blood platelets are regulated in the U.S.

From a global perspective, many fear that international organ trading would turn developing nations into a "kidney bank" for wealthy Westerners. However, Professor Roth reminded the audience that kidney disease disproportionately ravages lower-income demographics worldwide; they are consumers of these medical resources just as much as suppliers.



Furthermore, he urged the audience to look at the grim reality: while academics debate ethics, thousands of desperate patients are forced into the black market right now. Illegal surgeries are performed in unsanitary, dangerous conditions with rampant human rights abuses. "We cannot let the fear of potential exploitation completely paralyze progress while a lethal black market thrives," Professor Roth stated.

The Evolution of the Non-Simultaneous Donor Chain

The discussion then pivoted back to his non-monetary kidney exchange programs. To maximize matches, Professor Roth's team initially designed three-way exchanges. However, to prevent a donor from backing out after their loved one had already received a kidney, all surgeries had to be performed simultaneously. This logistical nightmare effectively capped the size of exchange networks.

To break this bottleneck, Professor Roth engineered the "Non-Simultaneous Extended Donor Chain." The chain is ignited by an altruistic "good Samaritan" donor who gives a kidney to a patient in an incompatible pair. That patient's intended donor then "pays it forward" by

donating to a patient in another pair, and the chain continues. Crucially, the system is designed so that if a donor down the line reneges, it never deprives a patient who has already given an organ; it simply pauses the chain until another match is found. This brilliant operational tweak has saved countless lives across the United States.

When asked whether such radical healthcare models should wait until national laws and regulations are fully mature before implementation, Professor Roth's answer was an emphatic no. "If we wait for the perfect regulatory framework,

it will be too late," he asserted. He pointed to Hungary as a cautionary tale: the country drafted kidney exchange laws in the 2010s but spent a decade refining the text before implementation. During those ten years, thousands of kidney patients died. Professor Roth advocates for a bottom-up approach: launch the initiative safely, gather real-world data, and fix the operational flaws dynamically on the ground. As an economist, Professor Roth's pragmatic, problem-solving approach to human mortality left a profound impression on NTHU.



DISCIPLINE - The Proven Path to Investment Success: Professor Che-Chun Lin on Resilient Investing and Life Philosophy

Written by Yi-Hsuan Chuang



(From left) Prof. Hong-Hua Pan, Director of the CTM Public Affairs Office & Professor of Quantitative Finance; Prof. Che-Chun Lin, Vice President of the NTHU Office of Alumni Service and Resources Development & Professor of Quantitative Finance.

Behind every world-class university stands a robust financial engine. Professor Lin, Che-Chun-former Dean of the College of Technology Management and current Vice President for Alumni Service and Resources Development at National Tsing Hua University (NTHU) -recently released his new book, "DISCIPLINE - The Proven Path to Investment Success." In it, he pulls back the curtain on the management philosophy driving NTHU's Endowment Fund.

From Budgeting to Sustainability : A Paradigm Shift

While "Endowment Funds" may be a foreign concept to the Taiwanese general public, they are the lifeblood of elite institutions like Harvard and Yale, often contributing 10% to 14% of their annual operating budgets.

Historically, Taiwanese national universities operated on a rigid government budget system where any year-end surplus had to be returned to the national treasury-making long-term planning nearly

impossible. This changed in 1996 with the introduction of University Endowment Funds. Professor Lin's journey with the fund began in 2012, where he bridged the gap between classroom theory and market reality, helping NTHU build a self-sustaining "wellspring" of institutional wealth.

Risk First: Survival Trumps Gains

Professor Lin's investment philosophy is defined by rational conservatism. "Our first principle is risk control; returns come second," he asserts. For long-term institutional capital, excessive short-term volatility is the ultimate enemy.

To manage this, the team adheres to a strict "Core List" discipline:

- **Selective Exposure:** Investing is strictly limited to a pool of fewer than 100 high-quality companies. "Hype stocks" outside this list are ignored to avoid unknown risks.
- **Strategic Allocation:** Capital is balanced between individual equities and stable-income Bond ETFs.
- **The Cash Buffer:** A specific percentage of cash is always maintained. This liquidity proved vital during the 2020 COVID-19 crash and subsequent inflationary periods, allowing the team to buy quality assets while the rest of the market was in a panic.

Investing with a Conscience: Choosing Values Over Profits

Professor Lin pointed out as a premier national university, the management of

the endowment fund must bridge the gap between financial growth and social responsibility. Professor Lin recounted one of the team's most challenging decisions: divesting from a major traditional steel corporation.

At the time, the stock was poised for a significant rally as the economic cycle turned and raw material prices surged. However, the investment drew scrutiny when a legislator identified the company as a major carbon emitter, sparking a public debate over whether such holdings aligned with NTHU's commitment to sustainability. Notably, the company was already a constituent of the FTSE4Good Index. Yet, as a leading advocate for sustainable development, NTHU chose to hold itself to an even higher standard.

This experience reinforced a core conviction: disciplined investing is not merely about chasing performance; it is about standing by one's principles, especially when faced with controversy.

"National university funds are rooted in the goodwill of society," Professor Lin noted calmly. "We must maintain an unwavering ethical and environmental bottom line." This commitment was formalized in 2021 when the NTHU Endowment Fund team issued a landmark statement explicitly excluding high-pollution and high-carbon industries from its portfolio. For Professor Lin, this integrity is the true essence of "Disciplined Winning."

AI and the "Human-in-the-Loop"

In an era of algorithmic and quantitative trading, will AI eventually replace human fund managers? Professor Lin views AI

as a powerful tool for data processing and scenario modeling, but with a significant caveat: AI cannot take responsibility.

"AI lacks the skin in the game to be held accountable for a decision," he notes. When systemic risks trigger irrational market panic, quantitative models often fail. In those moments, it takes a human to manage the team's emotions, shoulder the risk, and make the final call. He encourages students to view AI as a collaborator—using it to gain efficiency while spending their own time developing empathy, resilience, and a grounded value system.

Redefining Leadership and Networking

Professor Lin also maps out the evolution of leadership through three stages:

1. Junior Level: Focused on execution and building credibility through precision.
2. Mid-Level: Focused on integration and coordinating cross-functional resources.
3. Executive Level: Focused on accountability, making high-stakes decisions under pressure.

He also challenges the modern myth of "network management." For Professor Lin, true networking isn't about collecting business cards at social mixers; it is the "battle-tested trust" earned by solving complex problems alongside others. He urges students to seek out cross-disciplinary projects and international exchanges where real relationships are forged in the trenches of collaboration.



A Vision for the Future

Looking ahead, Professor Lin identifies a surprising priority for NTHU's endowment: upgrading student dormitories. He argues that internationalization isn't just about English-taught courses; it's about infrastructure. Providing world-class, comfortable living environments is essential to attracting global talent—a mission the endowment fund is poised to support.

Conclusion

Professor Lin's insights reveal that discipline is more than just an investment strategy; it is a life-altering framework. By focusing on long-term stability over short-term noise, and values over easy wins, he provides a roadmap for students and investors alike. In life, as in finance, the goal is to become a "sustainable fund"—building long-term compound interest through character, resilience, and unwavering discipline.

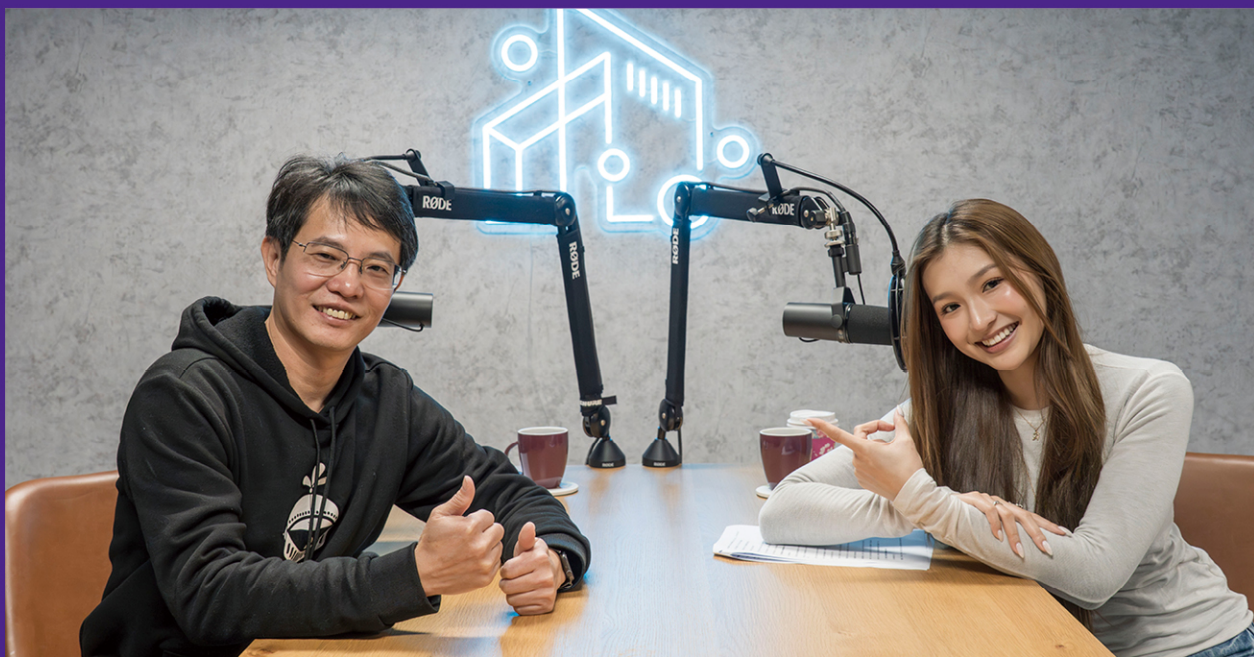
The full interview will be featured on the CTM Podcast in July 2026. Stay tuned !!



Podcast

The Rational Dreamer: IPMT Alumna Ally Shen on Reclaiming Life's Narrative Through Discipline

Written by Yi-Hsuan Chuang




(From left) Prof. Jui-Hsien Chou, Associate Professor, Department of Economics; Ally Shen, Alumna, IPMT.

Ally Shen embodies a rare duality: a high-achieving National Tsing Hua University (NTHU) student and an independent singer-songwriter. Her journey has seen her evolve from an idol in the girl group "Per6ix" to a solo artist who writes and produces her own music. Facing the difficult choice between studying abroad and pursuing her entertainment career, she chose a third path—graduating a year early to prove she could have it all. In this exclusive interview, Ally shares how rationality and self-discipline allowed her to find her own rhythm between the classroom and the stage.

Breaking Stereotypes Under the Spotlight

While most students were simply adjusting to university life, Ally was already three years into her journey as a trainee, preparing for her debut. Having been accepted into prestigious schools abroad, she faced a crossroad. To keep her musical dreams alive without sacrificing her education, she enrolled in NTHU's Experimental Education Program. This allowed her to design a bespoke curriculum, blending Technology Management and Marketing with online music courses from the Berklee College of Music.



Faced with her parents' initial concerns, Ally let her actions do the talking. "My father said that if I didn't get into a top-tier university in Taiwan, I should go abroad. I preferred to prove myself through results," she recalls. She did exactly that, twice winning the Presidential Award for academic excellence, proving that her artistic pursuits did not come at the cost of her studies.


The Three-Year Strategy: Engineering Time

When the pandemic stalled her group's activities during her freshman year, Ally watched her peers prepare to study abroad and felt a pang of self-doubt. "I wondered if I should just give up and be an ordinary student," she admits.

Instead of retreating, she doubled down. With remarkable grit, she compressed a four-year degree into three. By clearing her schedule a year early, she created the "time elasticity" needed to focus entirely on her music before deciding on her next move. Her secret weapon? Self-awareness. "I know my concentration is poor in the morning, so I scheduled all my classes in the afternoon," she explains. Mapping her life to her natural energy levels allowed her to maintain peak efficiency.

From Idol Group to Indie Creator: Taking the Creative Lead


Ally's academic training directly feeds her artistry. Her graduation project explored "Key Elements of Music Marketing in the Digital Age," comparing the strategies of



major labels versus independent artists. She applied these insights to her first self-composed single, "Is it all a lie," overseeing everything from lyrics to arrangement.

Transitioning from a curated group member to an indie creator has been transformative. "I can now clearly control the vibe and style of my work," she says. "There is a profound sense of achievement in performing your own creations that you just don't get from singing someone else's songs."

A Strategic Mindset: Algorithms and Feedback



In the digital era, a singer must also be a strategist. This is why Ally chose to study marketing. She maintains a sharp eye on market trends, actively analyzing Instagram and Shorts algorithms to see which "hooks" resonate with listeners. "Trends move so fast now; if you aren't careful, what was popular two months ago is already obsolete," she notes, treating her observations as a personal database for inspiration.

Being in the public eye also means facing online criticism. Ally approaches this with her trademark rationality. "I choose what to care about," she says. "If a comment is constructive and based on something I actually missed, I absorb it. If it's just 'hate for the sake of hate,' I find it funny and move on." By drawing a clear line in the sand, she protects her energy from meaningless negativity.

The Future Blueprint: Rituals and Reality

When discussing her goals, Ally's eyes light up. "I really want to hold my own solo concert—a small, intimate venue for 100 to 500 fans who can sing my songs back to me." She is currently preparing her next album to build up her repertoire, including a cheeky new track about "Mama's boy" currently in the mixing stage.

If she had to define herself in three words today, they would be Rational, Organized, and Life-conscious. She emphasizes the importance of "life rituals" to avoid burnout. "I used to blindly try to do everything at once, but I realized that you plan and work to have a good life. If you don't enjoy it, where will you find the inspiration to create?"

Defining Her Own Path

Ally Shen refuses to be boxed in by a single label. Between the supposedly conflicting worlds of academia and entertainment, she has found a perfect equilibrium. By deconstructing her dreams with logic and paving her future with discipline, she is proving that you don't have to choose between being a dreamer and being a realist.

Soon, we expect to see this NTHU alumna on that stage she's been dreaming of, singing her own songs to a crowd that finally sees the person behind the "high-achiever" and "idol" labels—a true artist in control of her own destiny.

The full interview will be featured on the CTM Podcast in June 2026. Stay tuned !!



Podcast





Supporting a Circular Economy : Insights from Taiwan's Plastic Waste Sector and Lessons for Developing Countries

This article is provided by Prof. Mei-Chih Hu (translated by the Office of Public Affairs)



Authors: Wu, C. Y., Hu, M. C., & Ni, F. C.

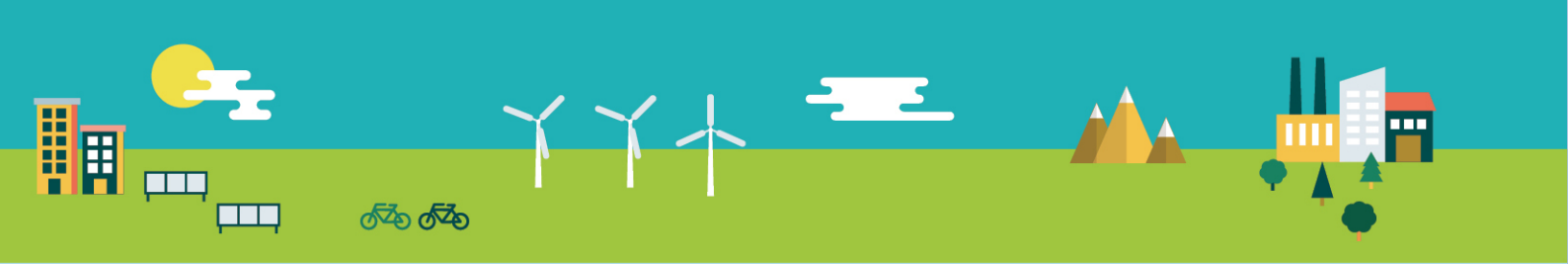
Published in: Sustainable Production and Consumption, 26, 228–238 (SSCI)

Professor Hu was specially invited by the Centre for Socio-Eco-Nomic Development (CSEND), a think tank with special consultative status with the United Nations Economic and Social Council (ECOSOC), to deliver an oral presentation on this study at the WTO Public Forum 2023 in Geneva, Switzerland.

As the world faces the growing challenges of climate change, resource depletion,

and waste governance, the circular economy has become an increasingly important pathway for advancing sustainable development. However, building a circular economy involves more than raising recycling rates or improving waste treatment technologies. It requires the coordinated development of institutions, industrial networks, market mechanisms, and firm-level capabilities that can support long-term systemic transformation.

Focusing on Taiwan's plastic waste industry, Professor Hu and her research team examine how Taiwan has gradually developed an industrial-scale circular economy model amid the pressures of industrialization and environmental governance. Their study shows that Taiwan's experience has been shaped by the dynamic interaction among government policy adjustments, industrial network collaboration, capability building among small and medium-sized enterprises, and evolving market demand. Together, these mutually reinforcing forces have formed a collective innovation capacity that enables Taiwan's circular economy system to respond continuously to both environmental challenges and industrial development needs.



The study particularly highlights the importance of “network-based collective resource reconfiguration” and “adaptive institutional governance.” Its findings suggest that developing countries do not have to rely solely on highly mature technologies or large corporations when promoting circular economy transitions. By mobilizing existing industrial foundations, local enterprise capabilities, and targeted policy incentives, latecomer economies can gradually build viable green industrial pathways.

The case of Taiwan’s plastic waste industry demonstrates how environmental governance can be transformed into an opportunity for industrial upgrading and new business development. Beyond contributing to research on the circular economy and sustainable production and consumption, this study brings Taiwan’s local experience into global sustainability dialogues and offers a valuable reference for developing countries pursuing green transformation.



CTM at a Glance

Honor

Congratulations to Associate Prof. Wan-Yu Chen (LST), Associate Prof. Pi-Han Tsai (ECON), and Associate Prof. Hung-Hua Pan (QF) on receiving the 114 Academic Year CTM Outstanding Teaching Award for Full-Time Faculty.

Congratulations to Prof. Chun-Yang Lin (QF) and Prof. Yu-Ni Yang (ECON) on receiving the 114 Academic Year CTM Outstanding Teaching Award for Part-Time Faculty.

Congratulations to Associate Prof. Wan-Yu Chen (LST) on receiving the 2026 Academic Year University Outstanding Teaching Award.

Congratulations to Tsing Hua Distinguished Chair Prof. Po-Hsuan Hsu (QF), Prof. Ching-Fu Lin (LST), and Associate Prof. Yi-Li Lee (LST) on receiving the 2026 CTM Award of Top Journal Submissions.

Congratulations to Prof. Ching-Fu Lin (LST), Associate Prof. Ho-Po Wong (ECON), and Assistant Prof. Pei-Yu Chien (ITM) on receiving the 2026 Research Award from CTM.

Congratulations to Tsing Hua Distinguished Chair Prof. Po-Hsuan Hsu (QF), Tsing Hua Chair Prof. Galit Shmueli (ISS), and Tsing Hua Chair Prof. Shih-Chang Hung (ITM) on receiving the 2026 Outstanding Research Award from the Hou-De Association of CTM.

Written by the Office of Public Affairs

Congratulations to Assistant Prof. I-Chun Lai (IPMT) and Assistant Prof. Jo-Hsiang Huang (LST) on receiving the 2026 Emerging Scholar Research Award from CTM.

Congratulations to Prof. Che-Chun Lin (QF) on receiving the 2026 Industry-Academia Research and Social Impact Award.

Congratulations to Yung-Kuan Chu (ECON) and Chen-Yu Fan (IPMT) on receiving the 2026 Dean's Award of College of Technology Management in recognition of their outstanding academic performance.

Congratulations to Angeline (IBBA) on being honored with the Outstanding Students Award of Hou De Association, and Wen-Chien Hsu (IPMT) on receiving the prestigious Zhu Shun Yi He Qin Scholarship.

Events

- On April 16, Xia Zhen, Chief Writer of Storm Media, delivered a talk titled "Welcome to the Fragmented Post-Truth Era: Media, Digital, and Politics" at the Sun Yun-Suan Lecture.
- On April 18, the Institute of Law and Technology (ILT) hosted its Alumni Homecoming, welcoming distinguished graduates back to campus for a day of reconnection.

- On April 20, Prof. Alvin E. Roth, the 2012 Nobel Laureate in Economics, delivered a keynote speech titled “Markets, Market Design and Medicine” as part of the “Nobel Laureate at Tsing Hua” series.
- On April 21, the College hosted an exclusive seminar and discussion session featuring Prof. Alvin E. Roth, providing CTM faculty and students with the unique opportunity to engage directly with the Nobel Master.
- On April 25, the CTM Professional Master’s Programs and the Department of Economics jointly held their Alumni Homecoming event to celebrate the enduring bond between the university and its graduates.
- On April 26, the CTM Undergraduate Program celebrated its 20th Anniversary with a special Alumni Homecoming gathering, marking two decades of academic excellence.
- On May 7, Dr. Ann-Shyn Chiang, President of China Medical University and Academician of Academia Sinica, delivered a talk titled “AI Connectome—Decoding Brain Networks and Igniting the Big Data Revolution in Precision Medicine” at the Sun Yun-Suan Lecture.
- On May 25, Chee Ching, President of Far EasTone Telecommunications, delivered a talk titled “How to Drive Sustainable Corporate Growth and Governance with New Technologies” at the Sun Yun-Suan Lecture.
- On May 30, the College of Technology Management held its Commencement Ceremony, a momentous occasion to honor and celebrate the achievements of the Class of 2026.





CTM

E-Newsletter



www.ctm.nthu.edu.tw

